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ABSTRACT

This document, which is intended for use by community and junior colleges throughout Mississippi, contains curriculum frameworks for the course sequences in the physical therapy assistant program. Presented in the introductory section are a description of the program and suggested course sequence. Section I lists baseline competencies, and section II consists of outlines for each of the following courses in the sequence: survey of physical therapy; physical therapy assistant practica I-IV; fundamental concepts of physical therapy; fundamental skills for physical therapist assistants; therapeutic modalities I; kinesiology; therapeutic exercise and rehabilitation (TER) I; therapeutic modalities II; TER II; clinical education I-IV, medical conditions and related pathology; physical therapy seminar; and related academic courses in college algebra, English composition I, anatomy and physiology I, general psychology I, survey of physics I, oral communication, anatomy and physiology II, English composition II, trigonometry, and introduction to computer concepts. Each course outline contains some/all of the following: course name and abbreviation; course classification; course description; prerequisites; and competencies and suggested objectives. Recommended tools and equipment are listed in section III. Appended are lists of related academic topics and workplace skills for the 21st century and student competency profiles for both courses. (MN)

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ED 397 296

Mississippi Curriculum Framework for

Physical Therapist Assistant Technology

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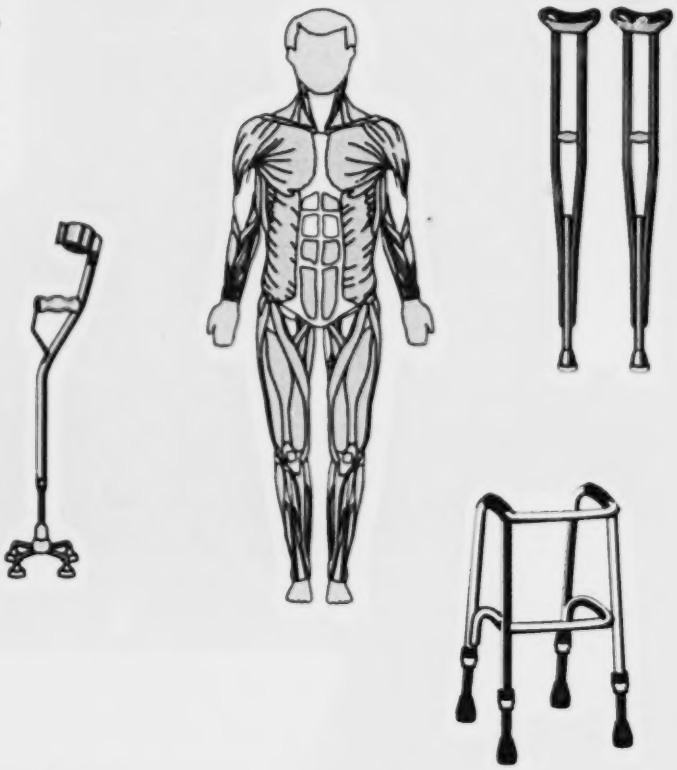

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Postsecondary
Vocational and Technical Education
1995

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MISSISSIPPI

CURRICULUM FRAMEWORK

FOR

PHYSICAL THERAPIST ASSISTANT

(CIP: 51.0806 - Physical Therapy Assistant)

POSTSECONDARY PROGRAMS 1995

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FOREWORD

In order to survive in today's global economy, businesses and industries have had to adopt new practices and procedures. Total quality management, statistical process control, participatory management, and other concepts of high performance work organizations are practices by which successful companies survive. Employers now expect their employees to be able to read, write, and communicate effectively; solve problems and make decisions; and interact with the technologies that are prevalent in today's workplace. Vocational-technical education programs must also adopt these practices in order to provide graduates who can enter and advance in the changing work world.

The curriculum framework in this document reflect these changes in the workplace and a number of other factors that impact on local vocational-technical programs. Federal and state legislation calls for articulation between high school and community college programs, integration of academic and vocational skills, and the development of sequential courses of study that provide students with the optimum educational path for achieving successful employment. National skills standards, developed by industry groups and sponsored by the U. S. Departments of Education and Labor, provide vocational educators with the expectations of employers across the United States. All of these factors are reflected in the framework found in this document.

Each postsecondary program of instruction consists of a program description and a suggested sequence of courses which focus on the development of occupational competencies. Each vocational-technical course in this sequence has been written using a common format which includes the following components:

- Course Name - A common name that will be used by all community/junior colleges in reporting students.
- Course Abbreviation - A common abbreviation that will be used by all community/junior colleges in reporting students.
- Classification - Courses may be classified as:
  - Vocational-technical core - A required vocational-technical course for all students.
  - Vocational-technical elective - An elective vocational-technical course.
  - Related academic course - An academic course which provides academic skills and knowledge directly related to the program area.
  - Academic core - An academic course which is required as part of the requirements for an Associate degree.
- Description - A short narrative which includes the major purpose(s) of the course and the recommended number of hours of lecture and laboratory activities to be conducted each week during a regular semester.

- Prerequisites - A listing of any prerequisite courses that must be taken prior to or on enrollment in the course.
- Competencies and Suggested Objectives - A listing of the competencies (major concepts and performances) and of the suggested student objectives that will enable students to demonstrate mastery of these competencies.

The following guidelines were used in developing the program(s) in this document and should be considered in compiling and revising course syllabi and daily lesson plans at the local level:

- The content of the courses in this document reflects approximately 75 percent of the time allocated to each course. For example, in a four semester hour course consisting of 30 hours lecture and 120 hours of laboratory activities, approximately 22 hours of lecture and 90 hours of lab should be taken by the competencies and suggested objectives identified in the course framework. The remaining 25 percent of each course should be developed at the local district level and may reflect:
  - Additional competencies and objectives within the course related to topics not found in the State framework, including activities related to specific needs of industries in the community college district.
  - Activities which develop a higher level of mastery on the existing competencies and suggested objectives.
  - Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed/revised.
  - Activities which implement components of the Mississippi Tech Prep initiative, including integration of academic and vocational-technical skills and coursework, school-to-work transition activities, and articulation of secondary and postsecondary vocational-technical programs.
  - Individualized learning activities, including worksite learning activities, to better prepare individuals in the courses for their chosen occupational area.

- Sequencing of the course within a program is left to the discretion of the local district. Naturally, foundation courses related to topics such as safety, tool and equipment usage, and other fundamental skills should be taught first. Other courses related to specific skill areas and related academics, however, may be sequenced to take advantage of seasonal and climatic conditions, resources located outside of the school, and other factors.

- Programs that offer an Associate of Applied Science degree must include a minimum 15 semester credit hour academic core. Specific courses to be taken within this core are to be determined by the local district. Minimum academic core courses are as follows:

- 3 semester credit hours Math/Science Elective
- 3 semester credit hours Written Communications Elective
- 3 semester credit hours Oral Communications Elective
- 3 semester credit hours Humanities/Fine Arts Elective
- 3 semester credit hours Social/Behavioral Science Elective

It is recommended that courses in the academic core be spaced out over the entire length of the program, so that students complete some academic and vocational-technical courses each semester. Each community/junior college has the discretion to select the actual courses that are required to meet this academic core requirement.

- In instances where secondary programs are directly related to community and junior college programs, competencies and suggested objectives from the high school programs are listed as Baseline Competencies. These competencies and objectives reflect skills and knowledge that are directly related to the community and junior college vocational-technical program. In adopting the curriculum framework, each community and junior college is asked to give assurances that:
  - students who can demonstrate mastery of the Baseline Competencies do not receive duplicate instruction, and
  - students who cannot demonstrate mastery of this content will be given the opportunity to do so.

- The roles of the Baseline Competencies are to:
  - Assist community/junior college personnel in developing articulation agreements with high schools, and
  - Ensure that all community and junior college courses provide a higher level of instruction than their secondary counterparts

- The Baseline Competencies may be taught as special "Introduction" courses for 3-6 semester hours of institutional credit which will not count toward Associate degree requirements. Community and junior colleges may choose to integrate the Baseline Competencies into ongoing courses in lieu of offering the "Introduction" courses or may offer the competencies through special projects or individualized instruction methods.

- Technical elective courses have been included to allow community colleges and students to customize programs to meet the needs of industries and employers in their area.

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PROGRAM DESCRIPTION

PHYSICAL THERAPIST ASSISTANT

The Physical Therapist Assistant curriculum is a two-year program of study that prepares an individual to work under the direction of a Physical Therapist to administer treatment for musculoskeletal, cardiovascular, and neurological disorders and diseases. Treatment techniques involve the therapeutic use of light, heat, sound, massage, therapeutic exercise, etc.

This program prepares the graduate to practice in hospitals, clinics, and other health care facilities as a member of the health care team. Opportunities for employment are varied and extensive. Admission to the program is selective and competitive.

PHYSICAL THERAPIST ASSISTANT

SUGGESTED COURSE SEQUENCE 1*

Baseline Competencies for Physical Therapist Assistant**

YEAR 1

3 sch	College Algebra (MAT 1313)	4 sch	Physics (PHY 2414 or 1214)
3 sch	English Composition I (ENG 1113)	3 sch	Oral Communication (SPT 1113)
4 sch	Anatomy and Physiology I (BIO 1514)	4 sch	Anatomy and Physiology II (BIO 1524)
3 sch	General Psychology (PSY 1513)	3 sch	Fundamental Skills for Physical Therapist Assistants (PTA 1213)
3 sch	Fundamental Concepts of Physical Therapy (PTA 1123)	4 sch	Kinesiology (PTA 1314)
1-3 sch	PTA Elective (District option) (PTA 1101,1111, 1112 or 1113)	1 sch	Practicum I (District option) (PTA 1111 or 1121)
17-20 sch		19 sch	

SUMMER TERM (8 WEEKS)
(Two four-week sessions)

4 sch	Therapeutic Modalities I (PTA 1224)
4 sch	Therapeutic Exercise and Rehabilitation I (PTA 1324)†
3 sch	Humanities/Fine Arts elective
11 sch	

YEAR 2

3 sch	Clinical Education I (PTA 1413)	3 sch	Physical Therapy Seminar (PTA 2523)
4 sch	Therapeutic Modalities II (PTA 2234)''	4 sch	Clinical Education II (PTA 2424)
3 sch	Therapeutic Exercise/Rehabilitation II (PTA 2333)	4 sch	Clinical Education III (PTA 2434)
3 sch	Medical Conditions and Related Pathology (PTA 2513)	4 sch	Clinical Education IV (PTA 2444)
13 sch		15 sch	

' Students who lack entry level skills in math, English, science, etc., will be provided related studies.

'' Baseline competencies are taken from the high school Allied Health program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

' Therapeutic Exercise and Rehabilitation I (PTA 1324) may be offered in Summer Term or Fall Semester.

'' Therapeutic Modalities II (PTA 2234) may be offered in Fall Semester or during Summer Term.

SUGGESTED COURSE SEQUENCE 2*

Baseline Competencies for Physical Therapist Assistant**

YEAR 1

3 sch College Algebra (MAT 1313)
3 sch English Composition I (ENG 1113)
4 sch Anatomy & Physiology I (BIO 1514)
3 sch Oral Communication (SPT 1113)
3 sch General Psychology (PSY 1513)
1-3 sch PTA Elective (District option) (PTA 1101, 1111, 1112, or 1113)
17-19 sch

4 sch Physics (PHY 2414 or PHY 1214)
3 sch English Composition II (ENG 1123)
4 sch Anatomy & Physiology II (BIO 1524)
3 sch Humanities/Fine Arts elective
3 sch Elective (Trigonometry-MAT 1323 or Introduction to Computer Concepts-CSC 1113)
1-3 sch PTA Elective (District option) (PTA 1111, 1112, or 1113)
18-20 sch

SUMMER TERM 1

3 sch Fundamental Concepts of Physical Therapy (PTA 1123)
3 sch Fundamental Skills for Physical Therapist Assistants (PTA 1213)'
3-6 sch

YEAR 2

3 sch	Fundamental Skills for Physical Therapist Assistants (PTA 1213)†	4 sch	Therapeutic Modalities II (PTA 2234)
4 sch	Kinesiology (PTA 1314)	3 sch	Therapeutic Exercise and Rehabilitation II (PTA 2333)
4 sch	Therapeutic Modalities I (PTA 1224)	3 sch	Medical Conditions and Related Pathology (PTA 2513)††
4 sch	Therapeutic Exercise and Rehabilitation I (PTA 1324)	4 sch	Clinical Education II (PTA 2424)
3 sch	Clinical Education I (PTA 1413)	3 sch	Physical Therapy Seminar (PTA 2523)‡
3 sch	Medical Conditions and Related Pathology (PTA 2513)††		
18 sch		14-17 sch	

SECOND TERM 2:

3 sch	Physical Therapy Seminar (PTA 2523)‡
4 sch	Clinical Education III (PTA 2434)‡
4 sch	Clinical Education IV (PTA 2444)
7-11 sch	

‡ Students who lack entry level skills in math, English, science, etc., will be provided related studies.

†† Baseline competencies are taken from the high school Allied Health program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

† Fundamental Skills for Physical Therepist Assistants (PTA 1213) may be offered in Summer Term or Fall Semester.

†† Medical Conditions and Related Pathology (PTA 2513) may be offered in Spring Semester of Year 2 if Fundamental Skills for Physical Therapist Assistants (PTA 1213) is offered in Summer Term 1. These two courses are not to be taken concurrently.

‡ Physical Therapy Seminar (PTA 2523) and Clinical Education III (PTA 2434) may be offered in Summer Term or Spring Semester.

SECTION I:

BASELINE COMPETENCIES

BASELINE COMPETENCIES FOR POSTSECONDARY PHYSICAL THERAPIST ASSISTANT TECHNOLOGY PROGRAMS

The following competencies and suggested objectives are taken from the publication *Mississippi Curriculum Framework for Secondary Allied Health*. These competencies and objectives represent the baseline which was used to develop the community/junior college Physical Therapist Assistant Technology courses. Students enrolled in postsecondary courses should either (1) have documented mastery of these competencies, or (2) be provided with these competencies before studying the advanced competencies in the Physical Therapist Assistant program.

Baseline competencies may be integrated into existing courses in the curriculum or taught as special "Introduction" courses. The "Introduction" courses may be taught for up to six semester hours of institutional credit and may be divided into two courses. If the Baseline Competencies are to be taught as "Introduction" courses, each course should be at least 3 credit hours. The following course number(s) and description should be used:

Course Name(s): Introduction to Physical Therapist Assistant Technology, Introduction to Physical Therapist Assistant Technology I, or Introduction to Physical Therapist Assistant Technology II

Course Abbreviation(s): PAT 100(3-6), PAT 1013, PAT 1023

Classification: Vocational-Technical Core

Description: These courses contain the baseline competencies and suggested objectives from the high school Allied Health curriculum which directly relate to the community college Physical Therapist Assistant Technology program. The courses are designed for students entering the community college who have had no previous training or documented experience in the field. (3-6 semester hours based upon existing skills for each student. May be divided into 2 courses for a maximum total of 6 hours of institutional credit.)

Competencies and Suggested Objectives:

1. Review material related to course and professional organizations.
   a. Identify student and course expectations.
   b. Demonstrate effective te[illegible]work skills.
   Related Academic Topics (See Appendix A): C1, C6
   Workplace Skills (See Appendix B): WP2
2. Apply communications in health care.
   a. Utilize effective communication skills.
   Related Academic Topics (See Appendix A): C1, C6
   Workplace Skills (See Appendix B): WP2, WP3

3. Explain professional ethics and legal responsibility.
   a. Explain professional ethics and legal responsibility including negligence, malpractice, and health occupation code of conduct.
   b. Define confidentiality.

   Related Academic Topics (See Appendix A): C1, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3
4. Explain client's rights.
   a. Identify ways to promote client's rights and privacy.
   b. Respect client.
   c. Define living wills, advance directives, and organ donations.

   Related Academic Topics (See Appendix A): C1, C6
   Workplace Skills (See Appendix B): WP3
5. Utilize universal precautions.
   a. Explain importance of universal precautions in life practices and health care.
   b. Explain the state and federal government's role in universal precautions.
   c. Relate universal precautions to the transmission of infectious diseases including HIV, AIDS, HBV, and TB.
   d. Demonstrate hand-washing technique.
   e. Demonstrate donning and removing clean gloves.

   Related Academic Topics (See Appendix A): C1, C4, C6, S8
   Workplace Skills (See Appendix B): WP2
6. Recognize safety procedures and policies.
   a. Describe basic safety procedures.
   b. Describe accident prevention methods and disaster plans.
   c. Follow facility policies.

   Related Academic Topics (See Appendix A): C1, C4, C6, S8
   Workplace Skills (See Appendix B): WP2
7. Perform basic safety procedures.
   a. Assist with basic emergency procedures to include falls, seizures, fainting.
   b. Attain Class C certification in cardiopulmonary resuscitation.
   c. Demonstrate body mechanics.
   d. Demonstrate and/or explain correct procedures for transfer equipment including wheelchair, stretcher, and mechanical/pneumatic lift.

   Related Academic Topics (See Appendix A): C1, C4, C6, S8
   Workplace Skills (See Appendix B): WP2, WP6
8. Recognize and use medical terminology.
   a. Demonstrate the use of medical references to spell medical terms correctly.
   b. Spell designated medical terms correctly.
   c. Define and divide medical terms into root words, prefixes, and suffixes.
   d. Interpret the common medical abbreviations and symbols including meanings, and uses.

e. Demonstrate the use of medical terms and abbreviations in reading, speaking, interpreting, and writing simulated medical records.

Related Academic Topics (See Appendix A): C1, C4, C5, C6, S1, S8
Workplace Skills (See Appendix B): WP2, WP4

9. Recognize the structure and functions of each organ system and apply related basic skills.
   a. Interpret the basic organization of the body.
   b. Interpret the basic structures and functions of the integumentary system.
   c. Interpret the basic structures and functions of the musculoskeletal system.
   d. Interpret the basic structures and functions of the circulatory system.
      i. Define, locate, and check the four main vital signs.
   e. Interpret the basic structures and functions of the respiratory system.
   f. Interpret the basic structures and functions of the digestive system.
   g. Interpret the basic structures and functions of the urinary system.
   h. Interpret the basic structures and functions of the nervous system.
   i. Interpret the basic structures and functions of the sensory system.
   j. Interpret the basic structures and functions of the reproductive system.
   k. Interpret the basic structures and functions of the endocrine system.

   Related Academic Topics (See Appendix A): C1, C2, C5, C6, M4, S1, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP4

10. Assess the therapeutic careers by utilizing medical terminology and basic skills in exploring specific therapeutic careers.

    Physical Therapy:
    a. Demonstrate the four point, three point, two point swing to, and swing through crutch walking techniques while observing all safety precautions.
    b. Demonstrate the use of a cane and walker while observing all safety precautions.
    c. Perform range of motion exercises including active and passive procedures.
    d. Apply hot, cold, and moist compresses while observing all safety precautions according to the policy of the health care facility.
    e. Apply cast care knowledge and safety to clinical situations.
    f. Identify traction care assessment.
    g. Demonstrate transfer of a patient using a stretcher and wheelchair, utilizing proper body mechanics.
    h. Recognize proper transfer techniques and safety with mechanical/pneumatic lift.
    i. Demonstrate correct turning-positioning for proper body alignment to include side-lying, supine, and prone positions.

11. Develop patient contact care skills by utilizing medical terminology and basic skills in a health care setting.
    a. Demonstrate how to don and remove sterile gloves using sterile technique.
    b. Demonstrate how to open sterile packages without contaminating contents using sterile technique.
    c. Demonstrate donning and removing isolation mask, eye shields, cap, gown, goggles, and cover shoes according to health care facility policy.
    d. Demonstrate double bagging technique and isolation technique according to health care facility policy.
    e. Define three general principles of isolation, three purposes of isolation, and five types of isolation according to CDC/OSHA guidelines.

    Related Academic Topics (See Appendix A): C1, C2, C4, C6, M4, S1, S8
    Workplace Skills (See Appendix B): WP2, WP3, WP6
12. Demonstrate job seeking and job keeping skills.
    a. Prepare a resume containing essential information.
    b. Complete a job application form.
    c. Explain procedures for job interviews.
    d. Demonstrate the role of an applicant in a job interview.
    e. Describe job interview etiquette.
    f. Maintain positive relations with clients and peers.
    g. Demonstrate job keeping skills.

    Related Academic Topics (See Appendix A): C1, C4, C6
    Workplace Skills (See Appendix B): WP2, WP3

SECTION II:

CURRICULUM GUIDE

FOR

PHYSICAL THERAPIST ASSISTANT

PHYSICAL THERAPIST ASSISTANT COURSES

Course Name: Survey of Physical Therapy

Course Abbreviation: PTA 1101

Classification: Vocational-Technical Core

Description: This course introduces the role of the Physical Therapist Assistant in the health care system, and the purpose, philosophy, and history of the profession and the American Physical Therapy Association. (1 sch: 1 hr. lecture)

Prerequisites: Admission to Physical Therapist Assistant Program

Competencies and Suggested Objectives:

1. Develop and appreciate the scope of the Physical Therapy profession.
   a. Discuss the history of the Physical Therapy profession.
   b. Discuss the health care delivery system.
   c. Discuss the roles of members of the health care team including Physical Therapists, Physical Therapist Assistants, and aides.
   d. Acquire knowledge of the history, structure, and function of the American Physical Therapy Association.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: PTA Practicum I

Course Abbreviation: PTA 1111

Classification: Vocational-Technical Core

Description: This course is designed to provide the student with extended observational time with limited participation in physical therapy activities. The student has the opportunity to gain a knowledge of the health care delivery system and physical therapy's place within that system. (1 sch: 3 hr. clinical)

Prerequisites: Admission to Physical Therapist Assistant Program

Competencies and Suggested Objectives:

1. Observe and describe roles of various personnel within the physical therapy department.
   Related Academic Topics (See Appendix A): C4, C6
   Workplace Skills (See Appendix B): WP2, WP6
2. Interpret the role of the patient in the health care delivery system.
   Related Academic Topics (See Appendix A): C4, C6
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: PTA Practicum II

Course Abbreviation: PTA 1121

Classification: Vocational-Technical Core

Description: This course is designed to provide the student with extended observational time with limited participation in physical therapy activities. The student has the opportunity to gain a knowledge of the health care delivery system and physical therapy's place within that system. (1 sch: 3 hr. clinical)

Prerequisites: Admission to Physical Therapist Assistant Program

Competencies and Suggested Objectives:

1. Observe and contrast roles of various personnel within the physical therapy department.
   Related Academic Topics (See Appendix A): C4, C6
   Workplace Skills (See Appendix B): WP2, WP6
2. Explain the role of the patient in the health care delivery system.
   Related Academic Topics (See Appendix A): C4, C6
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: PTA Practicum III

Course Abbreviation: PTA 1112

Classification: Vocational-Technical Core

Description: This course is designed to provide the student with extended observational time with limited participation in physical therapy activities. The student has the opportunity to gain an appreciation of the health care delivery system and physical therapy's place within that system. (2 sch: 6 hr. clinical)

Prerequisites: Admission to Physical Therapist Assistant Program

Competencies and Suggested Objectives:

1. Observe and illustrate the roles of various personnel in the physical therapy department.
   Related Academic Topics (See Appendix A): C3, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
2. Relate the patient's place within the health care delivery system.
   Related Academic Topics (See Appendix A): 3, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
3. Participate in routine supportive patient focused activities.
   Related Academic Topics (See Appendix A): C3, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6

Course Name: PTA Practicum IV

Course Abbreviation: PTA 1113

Classification: Vocational-Technical Core

Description: This course is designed to provide the student with extended observational time with limited participation in physical therapy activities. The student has the opportunity to gain a knowledge of the health care delivery system and physical therapy's place within that system. (3 sch: 9 hr. clinical)

Prerequisites: Admission to Physical Therapist Assistant Program

Competencies and Suggested Objectives:

1. Observe and explain the roles of various personnel in the physical therapy department.
   Related Academic Topics (See Appendix A): C3, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
2. Explain the patient's place within the health care delivery system.
   Related Academic Topics (See Appendix A): C3, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
3. Participate in routine supportive patient focused activities.
   Related Academic Topics (See Appendix A): C3, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
4. List and describe the patient related activities performed by PT's and PTA's in that particular clinical setting.
   Related Academic Topics (See Appendix A): C3, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6

Course Name: Fundamental Concepts of Physical Therapy

Course Abbreviation: PTA 1123

Classification: Vocational-Technical Core

Description: This course is an introduction to the field of physical therapy including role orientation, professional organizational structure, legal and ethical implications, and legislation. Historical patterns in the development of the profession will be explored and medical terminology introduced. (3 sch: 3 hr. lecture)

Prerequisites: Admission to Physical Therapist Assistant Program

Competencies and Suggested Objectives:

1. Demonstrate knowledge of medical terminology.
   a. Pronounce medical terms properly.
   b. Spell medical terms into root words, prefixes, and suffixes.
   c. Separate medical terms into root words, prefixes, and suffixes.
   d. Utilize common medical abbreviations and symbols.
   e. Utilize correct medical terms in writing medical records.

   Related Academic Topics (See Appendix A): C1, C2, C4, C5, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6
2. Demonstrate knowledge of desired psychosocial support for patients and their families.
   a. Identify and interpret his/her own reaction to illness and disability.
   b. Explore possible reasons for patient's and family's reactions to illness or disability.

   Related Academic Topics (See Appendix A): C1, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
3. Demonstrate knowledge of the history of physical therapy.
   a. Identify significant events, dates, and individuals in the development of the profession.

   Related Academic Topics (See Appendix A): C1, C4
   Workplace Skills (See Appendix B): WP2
4. Demonstrate understanding of legal and ethical responsibilities for health care providers.
   a. Demonstrate knowledge of standards of physical therapy.
   b. Demonstrate knowledge of standards of ethical conduct for the PTA and Guide for conduct of the Affiliate Member.
   c. Demonstrate knowledge of applicable state and federal laws.

   Related Academic Topics (See Appendix A): C1, C4, C6
   Workplace Skills (See Appendix B): WP2, WP6

5. Demonstrate knowledge of the health care delivery system.
   a. Integrate knowledge of social, economic, legislative, and demographic influences on health care delivery.

   Related Academic Topics (See Appendix A): C1, C4
   Workplace Skills (See Appendix B): WP2, WP6
6. Demonstrate knowledge of reimbursement mechanisms.
   a. Discuss basic factors involved in health care cost.
   b. Explain selected terms related to reimbursement cost.
   c. Appreciate importance of fiscal considerations for physical therapy providers and consumers.

   Related Academic Topics (See Appendix A): C1, C2, C4, C5, C6, M7
   Workplace Skills (See Appendix B): WP1, WP2, WP6
7. Demonstrate knowledge of medical records.
   a. Identify various components of a medical record.
   b. Appreciate the importance of accurate medical records.
   c. Demonstrate appreciation for the ethical and legal implications of medical records.

   Related Academic Topics (See Appendix A): C1, C2, C6
   Workplace Skills (See Appendix B): WP2, WP6
8. Analyze current issues related to physical therapy.
   a. Explore media references related to current problems and issues in health care.
   b. Identify differing points of view related to current issues.

   Related Academic Topics (See Appendix A): C1, C2, C4, C5
   Workplace Skills (See Appendix B): WP2, WP6
9. Demonstrate knowledge of history, structure, and function of the APTA.
   a. Identify the organizational structure of the APTA.
   b. Define the purpose and functions of the APTA.

   Related Academic Topics (See Appendix A): C1
   Workplace Skills (See Appendix B): WP2
10. Summarize the roles of members of the health care team including Physical Therapists, Physical Therapist Assistants, and aides.
    a. Demonstrate understanding of levels of authority and responsibility.
    b. Correlate the importance of effective representation of a PTA's roles within their scope of practice.

    Related Academic Topics (See Appendix A): C1, C4, C5, C6
    Workplace Skills (See Appendix B): WP2, WP6
11. Demonstrate an awareness of the importance of appropriate interpersonal interaction in providing health care.
    a. Give examples of possible relationships that exist in various settings.

    Related Academic Topics (See Appendix A): C5
    Workplace Skills (See Appendix B): WP2, WP6

Course Name: Fundamental Skills for Physical Therapist Assistants

Course Abbreviation: PTA 1213

Classification: Vocational-Technical Core

Description: This course provides a knowledge of topics utilized in the practice of physical therapy. Topics covered will include positioning and transfers, postural analysis, body mechanics, length and girth measurement, gait training, aseptic techniques, dressing, and bandaging. First aid and emergency techniques will also be covered. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Fundamental Concepts of Physical Therapy (PTA 1123)

Competencies and Suggested Objectives:

1. Determine proper body mechanics.
   a. Demonstrate proper procedure for lifting objects from various heights.
   b. Discuss musculoskeletal and biomechanical principles of body mechanics.

   Related Academic Topics (See Appendix A): C1, C2, S6, S8
   Workplace Skills (See Appendix B): WP2, WP6
2. Perform proper transfer techniques when handling patients.
   a. Demonstrate method for dependent transfer from bed to bed.
   b. Demonstrate procedure for a sliding board transfer.
   c. Demonstrate procedure for hoyer lift.
   d. Demonstrate method for a standing pivot transfer.

   Related Academic Topics (See Appendix A): C1, C2, C3, S6, S8
   Workplace Skills (See Appendix B): WP2, WP6
3. Instruct patient in correct utilizations of assistive devices for gait.
   a. Demonstrate method for adjusting assistive devices for proper fit.
   b. Discuss indications for assistive devices.
   c. Demonstrate procedure for coming to stand with assistive devices.
   d. Discuss determinations for gait patterns.
   e. Demonstrate proper procedure for ambulation in the parallel bars.
   f. Demonstrate proper procedure for ambulation with a walker.
   g. Demonstrate proper procedure for ambulation with a cane.
   h. Demonstrate proper procedure for ambulation with crutches.
   i. Demonstrate procedure for stair with assistive devices.
   j. Demonstrate procedure for door negotiation with assistive devices.
   k. Demonstrate procedure for instruction in falling techniques.

   Related Academic Topics (See Appendix A): C1, C2, M5, S6, S8
   Workplace Skills (See Appendix B): WP2, WP5, WP6

4. Utilize appropriate safety measures for patient treatment.
   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, S6, S8
   Workplace Skills (See Appendix B): WP5, WP6
5. Demonstrate selected bed mobility activities.
   a. Demonstrate procedure for rolling from supine to sidelying.
   b. Demonstrate procedure for rolling supine to prone.
   c. Demonstrate procedure for coming to sit.
   Related Academic Topics (See Appendix A): C1, C4, S8
   Workplace Skills (See Appendix B): WP2, WP6
6. Demonstrate specific positioning techniques.
   a. Demonstrate proper procedure for supine positioning.
   b. Demonstrate proper procedure for prone positioning.
   c. Demonstrate procedure for sidelying positioning.
   d. Discuss accessories and equipment necessary for proper positioning.
   Related Academic Topics (See Appendix A): C1, C4, S8
   Workplace Skills (See Appendix B): WP2, WP6
7. Demonstrate proper use of wheelchair.
   a. Demonstrate procedure for attaching and removing the accessories to a wheelchair.
   b. Demonstrate procedure for wheelchair propulsion.
   c. Demonstrate procedure for curb and doorway negotiation in a wheelchair.
   Related Academic Topics (See Appendix A): C1, C3, C4, S6, S8
   Workplace Skills (See Appendix B): WP2, WP5, WP6
8. Summarize OSHA standards for universal precautions.
   a. Discuss the meaning of OSHA standards.
   b. Discuss the epidemiology of bloodborne diseases.
   c. Discuss the signs and symptoms of bloodborne pathogens.
   d. Discuss the transmission of bloodborne pathogens.
   e. Discuss the tasks that will put the health care professional at risk.
   f. Discuss various methods of reducing risk and exposure to bloodborne pathogens and their limitations.
   g. Discuss the types, use, location, removal, handling, and disposal of personal protective equipment.
   h. Discuss considerations for selection of personal protective equipment.
   i. Discuss the efficacy, safety, method of administration, and benefits of the Hepatitis B vaccine.
   Related Academic Topics (See Appendix A): C1, C3, C4, S2, S5, S8
   Workplace Skills (See Appendix B): WP2
9. Demonstrate knowledge of patient assessment skills.
   a. Assess patient environment for architectural barriers and modification needs.
   b. Assess patient's functional activities status.
   c. Assess functional status of patient's gait.

d. Assess vital signs.
e. Appreciate the importance of proper documentation.

Related Academic Topics (See Appendix A): C1, C2, C4, M4, S8
Workplace Skills (See Appendix B): WP2, WP3, WP5

10. Utilize appropriate first aid techniques for selected emergency situations.
    a. Assess patient status to determine appropriate course of action in a given situation.
    b. Identify responsibilities in the determined course of action.

Related Academic Topics (See Appendix A): C1, C3, C4, C5, S1, S8
Workplace Skills (See Appendix B): WP2, WP3

Course Name: Therapeutic Modalities I

Course Abbreviation: PTA 1124

Classification: Vocational-Technical Core

Description: This course is an introduction to the theory and practical application of hydrotherapy, thermotherapy, electrotherapy, cryotherapy, phototherapy, and mechanotherapy. Emphasis will be placed on the technique of application, indications, and contraindications of modalities. (4 sch: 3 hr. lecture, 2 hr. lab)

Pre/Corequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1213), Kinesiology (PTA 1314), and Therapeutic Exercise and Rehabilitation I (PTA 1324)

Competencies and Suggested Objectives:

1. Demonstrate knowledge of principles and application of selected therapeutic modalities.
   a. Demonstrate proper procedure for utilization of hot packs.
   b. Demonstrate proper procedure for utilization of paraffin.
   c. Demonstrate proper procedure for utilization of diathermy.
   d. Demonstrate proper procedure for cryotherapy.
   e. Demonstrate proper procedure for utilization of ultraviolet.
   f. Demonstrate proper procedure for utilization of infrared.
   g. Demonstrate proper procedure for utilization of massage.
   h. Demonstrate proper procedure for utilization of ultrasound.
   i. Demonstrate proper procedure for hydrotherapy and wound care.
   j. Demonstrate proper procedure for mechanical traction.
   k. Demonstrate procedure for utilization of compression devices and garments.
   l. Demonstrate knowledge of views of pain and pain management.
   m. Demonstrate proper procedure for utilization of use of light.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C6, M4, S1, S6, S8

   Workplace Skills (See Appendix B): WP2, WP5, WP6
2. Perform selected assessment and measurement techniques.
   a. Assess patient's pain level.
   b. Assess segmental length, girth, and volume for patient.
   c. Demonstrate proper procedure for skin and sensation assessment.

   Related Academic Topics (See Appendix A): C3, C4, C6, M4, S1

   Workplace Skills (See Appendix B): WP2, WP5, WP6

Course Name: Kinesiology

Course Abbreviation: PTA 1314

Classification: Vocational-Technical Core

Description: This course studies individual muscles and muscle functions, biomechanical principles of joint motion and gait patterns, and goniometry. (4 sch: 3 hr. lecture, 2 hr. lab)

Pre/Corequisites: Fundamental Concepts of Physical Therapy (PTA 1123) and Fundamental Skills for Physical Therapist Assistants (PTA 1213)

Competencies and Suggested Objectives:

1. Identify biomechanical principles relating to the human body.
   a. Describe the forces acting on bodies in terms of equilibrium and movement.
   b. Measure and record bodily motion with consideration of the characteristics of joints and bony segments involved in motion.

   Related Academic Topics (See Appendix A): C1, C2, C4, M4, S6
   Workplace Skills (See Appendix B): WP2, WP6
2. Identify principles and characteristics of muscle.
   a. Define selected terms related to muscle contraction.
   b. Classify muscles according to their interaction in joint movement.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1, S6
   Workplace Skills (See Appendix B): WP2, WP6
3. Demonstrate knowledge of selected joints and perform related joint activities.
   a. Identify and palpate bony prominence and trace the muscle and/or tendon which act upon the joint.
   b. Identify the forces of motion that act upon joints.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1, S6
   Workplace Skills (See Appendix B): WP2, WP6
4. Demonstrate knowledge of normal components of gait.
   a. Explain the phases of locomotion.
   b. Differentiate possible causes of gait deviation.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1, S6
   Workplace Skills (See Appendix B): WP2, WP6
5. Differentiate between normal posture and postural deviations.
   a. Demonstrate components of normal posture.
   b. Identify postural deviations and causes.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1, S6
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Therapeutic Exercise and Rehabilitation I

Course Abbreviation: PTA 1324

Classification: Vocational-Technical Core

Description: This course provides an overview of the biochemical and neurophysiological basis and application of various therapeutic exercises. The basics of therapeutic exercise are correlated with specific conditions. Manual muscle testing is also introduced. This course focuses on rehabilitation techniques in the treatment of a variety of selected disabling conditions. Emphasizes specialized exercise procedures. (4 sch: 3 hr. lecture, 2 hr. lab)

Pre/Corequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1213), Therapeutic Modalities I (PTA 1224), and Kinesiology (PTA 1314)

Competencies and Suggested Objectives:

1. Perform specific therapeutic exercise treatments.
   a. Implement treatment programs that include PROM, AAROM, AROM, and ARROM exercises.
   b. Implement treatment programs that include isometric exercises.
   c. Implement treatment programs that include isokinetic exercises.
   d. Implement treatment programs that include exercises for the well elderly.
   e. Implement treatment programs that include stretching exercises.
   f. Implement treatment programs that include peripheral joint mobilization techniques.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1, S6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
2. Describe and explain concepts of therapeutic exercise.
   a. Describe the difference between isotonic, isometric, and isokinetic exercise.
   b. Describe the overload principle.
   c. Explain how resistance, repetition, set, speed, and arc of motion variables are manipulated to achieve various goals of therapeutic exercise.
   d. Describe the difference between aerobic and anaerobic exercise.
   e. Define strength, endurance, power, and flexibility and explain how therapeutic exercise programs are formulated to increase each.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1, S6
   Workplace Skills (See Appendix B): WP2, WP3, WP6

3. Determine accurate range of motion measurements using goniometry.
   a. Identify the anatomical position, planes, and axes as points of reference.
   b. Palpate bony and soft tissue anatomical landmarks at each joint of the extremities and in the spine, trunk, and head.
   c. Perform accurate goniometric measurements at each joint of the extremities, spine, trunk, and head.
   d. Document goniometry findings using correct terminology and format.

   Related Academic Topics (See Appendix A): C1, C2, C5, M4, S1, S6, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP6
4. Assess accurately the strength of various muscle groups.
   a. Describe the basic mechanics of a muscle contraction.
   b. Describe the process of grading the strength of a muscle contraction.
   c. Identify the origin, insertion, action, and nerve supply of the muscles to be tested.
   d. Perform accurate manual muscle strength assessments for the muscles associated with each joint of the extremities, trunk, and head.
   e. Document muscle strength assessments using correct terminology and format.

   Related Academic Topics (See Appendix A): C1, C2, C4, C5, M5, S1, S6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
5. Implement exercise programs for specific musculoskeletal disorders.
   a. Implement therapeutic exercise programs designed to treat soft tissue, bony tissue, and post-surgical problems.
   b. Implement therapeutic exercise programs designed to treat the spine, specifically the neck and lower back.
   c. Implement therapeutic exercise programs designed to treat obstetric patients.
   d. Implement therapeutic exercise programs designed to treat patients with coronary disease.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, M4, S1, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP6
6. Perform additional assessment and measurement techniques.
   a. Assess a patient's flexibility and muscle length.
   b. Correlate joint flexibility, goniometry, strength, and muscle length findings to understand the rationale for specific therapeutic exercise programs.

   Related Academic Topics (See Appendix A): C1, C2, C5, M4, S1, S6, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP6

Course Name: Therapeutic Modalities II

Course Abbreviation: PTA 2234

Classification: Vocational-Technical Core

Description: This course emphasizes theory and practical application of electrotherapy and other therapeutic procedures. Indications and contraindications of modalities are also discussed. (4 sch: 3 hr. lecture, 2 hr. lab)

Pre/Corequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1213), Therapeutic Modalities I (PTA 1224), Kinesiology (PTA 1314), Therapeutic Exercise and Rehabilitation I (PTA 1324), and Clinical Education I (PTA 1413)

Competencies and Suggested Objectives:

1. Demonstrate knowledge of principles and application of therapeutic modalities.
   a. Demonstrate proper procedure for utilization of electrical stimulation.
   b. Demonstrate proper procedure for utilization of TENS.
   c. Demonstrate proper procedure for utilization of interferential current.
   d. Demonstrate proper procedure for utilization of biofeedback.
   e. Demonstrate proper procedure for utilization of iontophoresis.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C6, M4, S1, S6, S8

   Workplace Skills (See Appendix B): WP2, WP5, WP6

Course Name: Therapeutic Exercise and Rehabilitation II

Course Abbreviation: PTA 2333

Classification: Vocational-Technical Core

Description: This course is a continuation of the theory, principles, and techniques of therapeutic exercise; the techniques of goniometric, sensory, and gross manual muscle testing as applied to muscle weakness and restriction; principles of prosthetics and orthotics; functional training; and other techniques. (3 sch: 1 hr. lecture, 4 hr. lab)

Pre/Corequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1213), Therapeutic Modalities I (PTA 1224), Kinesiology (PTA 1314), Therapeutic Exercise and Rehabilitation I (PTA 1324), and Clinical Education I (PTA 1413)

Competencies and Suggested Objectives:

1. Identify the components and functions of the central and peripheral nervous systems.
   a. Identify the structure and function of the various components of the CNS.
   b. Identify the structure and function of the various components of the PNS.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1
   Workplace Skills (See Appendix B): WP2, WP6
2. Describe and implement the use of the developmental sequence in the treatment of neurological disorders.
   a. Describe the developmental sequence.
   b. Describe the stages of mobility, stability, controlled mobility, and skill in the development of motor control.
   c. Describe and implement the use of the developmental sequence in the treatment of neurologically involved pediatric patients.
   d. Describe and implement the use of the developmental sequence in the treatment of neurologically involved adult patients.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1
   Workplace Skills (See Appendix B): WP2, WP6
3. Demonstrate knowledge of and implement specific techniques in the treatment of neurological disorders.
   a. Demonstrate and implement PNF (proprioceptive neuromuscular facilitation) techniques in the treatment of neurologically involved patients.

b. Demonstrate and implement NDT (neurological developmental techniques) in the treatment of patients S/P CVA.

Related Academic Topics (See Appendix A): C1, C4, S1, S6
Workplace Skills (See Appendix B): WP2, WP6

4. Describe the etiology, symptoms, and clinical course of specific neurological disorders.
   a. Describe the etiology, symptoms, and clinical course of Cerebral Palsy.
   b. Describe the etiology, symptoms, and clinical course of a CVA.
   c. Describe the etiology, symptoms, and clinical course of a head injury.
   d. Describe the etiology, symptoms, and clinical course of Multiple Sclerosis.
   e. Describe the etiology, symptoms, and clinical course of Parkinsonism.
   f. Describe the etiology, symptoms, and clinical course of Alzheimer's Disease.
   g. Describe the etiology, symptoms, and clinical course of Spina Bifida.
   h. Describe the etiology, symptoms, and clinical course of an SCI.
   i. Describe the etiology, symptoms, and clinical course of peripheral nerve disorders.

   Related Academic Topics (See Appendix A): C1, C4, S1
   Workplace Skills (See Appendix B): WP2, WP6

5. Perform selected patient assessment and treatment activities.
   a. Identify and describe normal pathological reflexes and tone.
   b. Perform therapeutic exercise treatments for each of the diagnoses listed in Competency #4.
   c. Demonstrate knowledge in management and teaching of the permanently disabled person including transfers, positioning, gait, and ADL (activities of daily living).
   d. Perform balance assessment and training.
   e. Perform righting and equilibrium reaction assessment.
   f. Perform sensory assessment.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1, S6, S8
   Workplace Skills (See Appendix B): WP2, WP6

6. Identify specific prosthetic and orthotic devices for specific conditions.
   a. Identify orthotic devices commonly used in the treatment of patients S/P CVA (cerebral vascular accident).
   b. Identify orthotic devices commonly used in the treatment of patients S/P a CHI (closed head injury).
   c. Identify orthotic devices commonly used in the treatment of patients with peripheral nerve injuries.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1, S6
   Workplace Skills (See Appendix B): WP2, WP5, WP6

Course Name: Clinical Education I, II, III, IV

Course Abbreviation: PTA 2413, 2424, 2434, 2444

Classification: Vocational-Technical Core

Description: This course offers progressive supervised clinical experiences in applying the skills and modality procedures which prepare students for entry into the Physical Therapy profession. (3 sch: 9 hr. clinical for Clinical Education I; 4 sch: 12 hr. clinical each for Clinical Education II, III, and IV)

Prerequisites: Core Physical Therapist Assistant courses

Competencies and Suggested Objectives:

1. Demonstrate mastery of selected skills in a clinical setting.
   a. Demonstrate knowledge of:
      i. the rationale and effectiveness of physical therapy treatment procedures
      ii. the Standards of Practice for Physical Therapy, the Standards for Ethical Conduct for the Physical Therapist Assistant, and the Guide for Conduct of the Affiliate Member
      iii. applicable state and federal laws
      iv. ethical principles
      v. the scope of their abilities in the delivery of care
   b. Implement a comprehensive treatment plan developed by a physical therapist which may include but is not limited to use or application of:
      i. activities of daily living and functional training
      ii. assistive/adaptive devices
      iii. biofeedback
      iv. balance and gait training
      v. developmental activities
      vi. electric current
      vii. electromagnetic radiations
      viii. external compression
      ix. hydrotherapy
      x. orthoses and prostheses
      xi. patient/family education
      xii. postural training and body mechanics
      xiii. pulmonary hygiene techniques
      xiv. therapeutic exercise
      xv. therapeutic massage
      xvi. thermal agents
      xvii. topical application (including iontophoresis)

xviii. traction
xix. ultrasound
xx. universal precautions/infection control
xxi. wound care

c. Convey knowledge and skills through patient care and education by communicating the patient's status on a timely basis with the supervising physical therapist.

d. Perform appropriate assessment and measurement techniques to assist the supervising physical therapist in monitoring and modifying the plan of care within the knowledge and limits of practice. These techniques identify the patient's status with respect to such things as:
   i. architectural barriers and environmental modifications
   ii. endurance
   iii. flexibility/joint range of motion and muscle length
   iv. functional activities
   v. gait and balance
   vi. pain
   vii. posture
   viii. righting and equilibrium reactions
   ix. segmental length, girth and volume
   x. skin and sensation
   xi. strength
   xii. vital signs

e. Interact with patients and families in a manner which provides the desired psychosocial support including the recognition of cultural and socioeconomic differences.

f. Participate in the teaching of other health care providers, patients, and families.

g. Document relevant aspects of patient treatment.

h. Participate in discharge planning and follow-up care.

i. Demonstrate effective written, oral, and nonverbal communication with patients and their families, colleagues, health care providers, and the public.

j. Recognize the roles and responsibilities of physical therapist assistants in the physical therapy delivery system. Student performance will reflect:
   i. understanding levels of authority and responsibility
   ii. planning and time management techniques
   iii. performance evaluations
   iv. policies and procedures
   v. fiscal considerations for physical therapy providers and consumers
   vi. continuous quality improvement

vii. the practice of reading and interpreting professional literature
viii. participation in continued development of knowledge and skills

Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M4, M5, S1, S6, S8

Workplace Skills (See Appendix B): WP2, WP5, WP6

2. Perform related clinical education activities.
   a. Utilize resources to disseminate information about Physical Therapy practices to others.
   b. Attend patient staffings, report on patient status, and write progress notes in medical records.

Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6

Workplace Skills (See Appendix B): WP2, WP6

Course Name: Medical Conditions and Related Pathology

Course Abbreviation: PTA 2513

Classification: Vocational-Technical Core

Description: This course provides a basic knowledge of selected diseases and conditions encountered in physical therapy practice. Emphasis is on etiology, pathology, and clinical picture of diseases studied. Possible physical therapy procedures in each disability are discussed. (3 sch: 3 hr. lecture)

Prerequisites: Fundamental Concepts of Physical Therapy (PTA 1123) and Fundamental Skills for Physical Therapist Assistants (PTA 1314)

Competencies and Suggested Objectives:

1. Demonstrate an introductory knowledge of disease processes, traumatic disorders, and medical conditions which affect various body systems.
   a. Explain the etiological factors and prognoses of selected disease processes and conditions.
   b. List the incidence of various diseases and medical conditions.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6
2. Demonstrate knowledge of common surgical procedures.
   a. Discuss indications and contraindications for various surgical procedures.
   b. List postoperative procedures for various surgical procedures including precautions to be followed.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6
3. Explain and differentiate between diagnostic procedures.
   a. Discuss various tests and procedures utilized in differential diagnosis for various conditions.
   b. Differentiate various diagnostic procedures performed in physical therapy.

   Related Academic Topics (See Appendix A): C1, C4, C5, S1
   Workplace Skills (See Appendix B): WP2, WP6
4. Implement treatment procedures for specific conditions.
   a. Utilize an understanding of the incidence, pathology, and systemology of specific conditions discussed.
   b. Identify and discuss possible psychological and psychosocial implications that are associated with various conditions and treatments.

   Related Academic Topics (See Appendix A): C1, C4, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Physical Therapy Seminar

Course Abbreviation: PTA 2523

Classification: Vocational-Technical Core

Description: This course represents a synthesis of previous didactic, laboratory, and clinical experiences. Students are directed to explore a topic or area of interest in physical therapy practice. Recognition of the importance of employability skills after graduation is included. (3 sch: 3 hr. lecture)

Prerequisites: 4 semesters of core Physical Therapist Assistant coursework

Competencies and Suggested Objectives:

1. Develop and present a topic of expertise.
   a. Review current professional literature.
   b. Identify a particular interest in an aspect of physical therapy treatment to be targeted for development.
   c. Utilize clinical experiences, didactic instruction, patient and therapist interviews, and other resources in addition to a review of all pertinent literature to develop a clinical expertise.
   d. Compose a paper and present to a peer audience the body of knowledge gained during the development of the clinical expertise.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6
2. Present and critique various case studies.
   a. Identify patients from clinical education experiences with an interesting diagnosis and a clinical course that includes physical therapy intervention.
   b. Compose a time-line study of the clinic course of selected patients complete with an outline of the PT intervention strategies and outcomes.
   c. Present selected case studies to a peer audience.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6
3. Successfully complete a mock licensure exam.
   a. Attain a passing score on a mock exam.
   b. Utilize test results to identify areas of knowledge that should be targeted for further study in preparation for licensure exam.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, M7, S1, S6
   Workplace Skills (See Appendix B): WP2, WP5, WP6
4. Demonstrate an understanding of the skills required for successful employment.
   a. Demonstrate effective planning and time management skills.

b. Demonstrate an understanding of the supervisory process and performance evaluations.
c. Delineate the importance of policies and procedures in the provision of patient care.
d. Delineate the importance of continuous performance improvement activities.

Related Academic Topics (See Appendix A): C1, C2, C4, C6
Workplace Skills (See Appendix B): WP1, WP2, WP6

RELATED ACADEMIC COURSES

Course Name: College Algebra

Course Abbreviation: MAT 1313

Classification: Related Academic

Description: This course includes equations, inequalities, functions and graphs, circles, polynomial and rational functions, and systems of equations and inequalities.

Prerequisites: At least two units of high school algebra or MAT 1233

Course Name: English Composition I

Course Abbreviation: ENG 1113

Classification: Related Academic

Description: A study of grammar and composition, with emphasis on the sentence and the paragraph. Readings, frequent themes.

Course Name: Anatomy and Physiology I

Course Abbreviation: BIO 1514

Classification: Related Academic

Description: A lecture/laboratory course dealing with the anatomical and physiological study of the human body, particularly the molecular, cellular, tissue, organs, and systems. Each system is considered in detail regarding both structure and function.

Course Name: General Psychology I

Course Abbreviation: PSY 1513

Classification: Related Academic

Description: An introduction to the scientific study of human behavior. Includes history and methods of psychology; growth and development; principles of learning; sensation and perception; thinking; statistics; personality; and intelligence.

Course Name: Survey of Physics I

Course Abbreviation: PHY 1214 or 2414

Classification: Related Academic

Description: Lectures and demonstrations covering classic and modern physics.

Course Name: Oral Communication (Principles of Speech)

Course Abbreviation: SPT 1113

Classification: Related Academic

Description: Correct and effective English; correct pronunciation and enunciation; breath control; study and practice in making speeches for all occasions, major emphasis on organization of material; and practice in speaking before a group.

Course Name: Anatomy and Physiology II

Course Abbreviation: BIO 1524

Classification: Related Academic

Description: A lecture/laboratory course of the systems listed but not covered in BIO 1514.

Course Name: English Composition II

Course Abbreviation: ENG 1123

Classification: Related Academic

Description: A continuation of ENG 1113 with emphasis on the whole composition. Readings, themes, and research paper required.

Course Name: Trigonometry

Course Abbreviation: MAT 1323

Classification: Related Academic

Description: Trigonometric functions; functions of the composite angle; fundamental relations; trigonometric equations; logarithms; radian measure; solution of right and oblique triangles; inverse trigonometric functions; and vectors.

Prerequisites: MAT 1313 or equivalent

Course Name: Introduction to Computer Concepts

Course Abbreviation: CSC 1113

Classification: Related Academic

Description: A basic course that advances concepts, terminology, and theory of modern computers. It is a survey course. It is not for business, computer science, or engineering students.

SECTION III:

RECOMMENDED TOOLS AND EQUIPMENT

RECOMMENDED TOOLS AND EQUIPMENT FOR POSTSECONDARY PHYSICAL THERAPIST ASSISTANT PROGRAM

1. Ball, Large Exercise (1 per program)
2. BAPS Board (1 per program)
3. Bed, Hospital, Electric (1 per program)
4. Biofeedback, EMG (1 per 4 students)
5. Biofeedback, Temperature, Pulse, Muscle (1 per program)
6. Chair, Traction (1 per program)
7. Cutaneous Sensory Kit (1 per 4 students)
8. Dynanometer, Hand (1 per program)
9. Exercise Board with Legs (1 per program)
10. Exercise Mat, Floor type (1 per 2 students)
11. Freezer, Cold Pack (1 per program)
12. Goniometer Set (1 per 2 students)
13. Hand Evaluation Kit (1 per program)
14. Hydrocollator (2 per program)
15. Ice Machine (1 per program)
16. Inclinometer (2 per program)
17. Iontophoresor (1 per 4 students)
18. Microwave (1 per program)
19. Mirror, Free Standing (2 per program)
20. Overhead Hospital Bed Frame (1 per program)
21. Paraffin Bath (2 per program)
22. Parallel Bars (1 per program)
23. Pinch Dynamiter (1 per 4 students)
24. Postural Evaluation Kit (2 per program)
25. Pulley Weights (1 per program)
26. Pump, External Compression (2 per program)
27. Ramp (1 per program)
28. Scales, Digital (1 per program)
29. Skin Fold Fat Calipers (1 per program)
30. Stairs (1 per program)
31. Stimulator, Electrical, Combination electrotherapy unit (2 per program)
32. Stimulator, Electrical, Microcurrent (1 per program)
33. Stimulator, Electrical, Ultrasound combo unit (1 per 4 students)
34. Stimulator, Electrical, High voltage pulse current unit (2 per program)
35. Stimulator, Electrical, Russian (1 per program)
36. Stimulator, Electrical, Portable FES (1 per 4 students)
37. Stimulator, Electrical, TENS (1 per 2 students)
38. Stimulator, Electrical, DC Current (1 per 12 students)
39. Stimulator, Electrical, Interferential (2 per program)
40. Stretcher, Rolling Gurney with Mattress (1 per program)
41. Table, Mat (1 per 5 students)

42. Table, Small Adjustable (2 per program)
43. Table, Tilt, Electric (1 per program)
44. Traction, Device (2 per program)
45. Traction Table with Split Section (1 per program)
46. Bed Traction (1 per program)
47. Ultrasound Unit with Cart (1 per 4 students)
48. UV/Infrared light (1 per program)
49. Fluidotherapy (1 per program)
50. Shortwave diathermy (1 per program)
51. Pulsavac (1 per program)
52. Vestibular Board (1 per program)
53. Volumnmeter, Hand-arm (2 per program)
54. Volumnmeter, Foot (1 per program)
55. Weight Cart with Cuff Weights (1 per program)
56. Wheelchair, Hemi-drive (1 per program)
57. Wheelchair, Standard Unit (1 per 4 students)
58. Wheelchair, Reclining (1 per program)
59. Wheelchair Cushion (2 per program)
60. Whirlpool, Extremity (1 per program)
61. Whirlpool, Mobile with Bench Seat (1 per program)
62. Call Bells (1 per 2 students)
63. Plinths (1 per 2 students)
64. High-Low Table (1 per program)
65. Sequential Circulator (1 per program)
66. Lift, Hydraulic (1 per program)
67. Splints, Wrist, knee immobilizer (1 assorted set per program)
68. Braces: back, knee, ankle (1 assorted set per program)
69. Prone Positioner (1 per 4 students)
70. Pulleys (1 per program)
71. Rowing Machine (1 per program)
72. Stairmaster (1 per program)
73. Theraputty, variety set (1 per 10 students)
74. Powder Board (2 per program)
75. Hot Packs (20 per program)
76. Treadmill (1 per program)
77. Stationary Bike (1 per program)
78. Strength Evaluator (1 per program)
79. Exercise Ball (2 per program)
80. ASP "Sharps" Container (1 per program)
81. Back Support, Lumbosacral Corset (1 per program)
82. Ball, Therapeutic (Small) (1 per program)
83. Bolster, Pediatric (1 set per program)
84. Cane, Standard Adjustable (1 per 3 students)
85. Cane, Quad (1 per 6 students)

86. Cold Pack (20 per program)
87. Crutches, Axillary (1 pair per 2 students)
88. Crutches, Loftstrand (2 pair per program)
89. Dumbbell Rack with Dumbbells (1 per program)
90. Exercise Skate (4 per program)
91. Gait Belts (1 per 2 students)
92. Goggle (2 per program)
93. Goniometer, Finger (1 per 4 students)
94. Goniometer, Large (1 per 2 students)
95. Goniometer, Small (1 per 3 students)
96. Hand Splint, Resting Hand Splint (2 pair per program)
97. Towels (3 per student)
98. Pillows (15 per 10 students)
99. Hip Abduction Pillow (1 per program)
100. Knee Brace, Swedish Knee Cage (1 per program)
101. Pillowcases, Standard (3 per student)
102. Platform Attachment (1 set or pair per program)
103. Reach Extender (1 per program)
104. Reflex Hammer (1 per student)
105. Sliding Board (1 per 4 students)
106. Sling, Arm (1 per program)
107. Sock Aide (1 per program)
108. Sphygmomanometer (1 per 2 students)
109. Stethoscope (1 per 2 students)
110. Stop Watch (2 per program)
111. Tape Measure (1 per student)
112. Terminal Knee Extension Boards (2 per program)
113. Thermometer, Glass (1 per student)
114. Walker, Standard Adjustable (1 per 2 students)
115. Walker, Standard Rolling with Brakes (2 per program)

INSTRUCTIONAL AIDS

1. Ankle Model (1 per program)
2. Brain Model (1 per program)
3. Camcorder (1 per program)
4. Cart, VCR/TV (1 per program)
5. Chart, Anatomical (1 set/program)
6. Computer (2 per program)
7. Elbow, Model Deluxe (1 per program)
8. Hand Model (1 per program)
9. Hip Model (1 per program)
10. Knee Model (1 per program)

11. Knee Model, Deep Dissection (1 per program)
12. Lumbar Model, 4th & 5th (1 per program)
13. Overhead Projector (1 per program)
14. Printer, Laser (1 per 2 computers)
15. Shoulder Model (1 per program)
16. Skeleton, Articulated Model (1 per program)
17. Skeleton, Disarticulated Model (1 per program)
18. Slide Projector (1 per program)
19. Spine Model (1 per program)
20. Synovial Joint Model (1 per program)
21. TV, Color 25" with Remote (1 per program)
22. VCR (1 per program)
23. Vertebral Column, Deluxe (1 per program)
24. LCD Overhead Projector for Multimedia (1 per program)
25. Washer (1 per program)
26. Dryer (1 per program)
27. Desks (1 per student)
28. Chairs (1 per student)
29. File Cabinets (3 per program)
30. Refrigerator (1 per program)
31. Bookshelves (2 per program)
32. Overhead Screen (1 per program)
33. Flat Sheet (2 per student)

Software:

Body Works: An Adventure in Anatomy, version 3.0 or latest (1 per computer)

Videos: (1 of each per program)

Instructional Video Series--Gottfried Medical:
- Made-To-Measure Surgical Elastic Supports
- Pressure Therapy Burn Garments
- Shoulder Rehabilitation: Part I Background
- Shoulder Rehabilitation: Part II Exercises
- Identifying Neurological Deficits
- Nervous System

Hands On Health Care: The Profession of Physical Therapy
OR Procedures: Maintaining the Sterile Field
Phonophoresis in Physical Therapy
Osteoarthritis
Successful Interviewing
Biomechanical Ankle Platform System
Body Mechanics: The Science of Moving Safely

Restorative Care Series--University of Maryland
- Transfer Techniques
- Activities of Daily Living
- Ambulation
- Positioning and Turning

Florence Kendall's Muscle Testing Video Library:
- Trunk and Hip Muscles, Part II (Strength Tests)
- Shoulder Joint and Shoulder Girdle Muscles
- Elbow, Forearm, and Hand Muscles
- Lower Extremity Muscles

Clinician's View: The Adult Hemiplegia Treatment Series:
- Introduction to Treatment Concepts and Application of NDT Principles
- Preparation for Moving into Gait
- Gaining Trunk Mobility and Head Control in a Head Injured Adolescent
- Working for Better Alignment in Sitting and Standing
- Preparing Weight Bearing on an Arm
- Knee Rehabilitation: Part I Background
- Knee Rehabilitation: Part II Exercise

A Living and Learning Series:
- Knee Replacement Therapy
- Hip Replacement Therapy
- Amputee Therapy
- Cascade Prosthetics and Orthotics
- Normal and Abnormal Development: A Comparative Analysis

Pediatric Lower Extremity Orthotic Treatment for Neuromotor Impairment
The Art of Clinical Instruction
Clinical Observation of Posture
Analysis of Movement and Posture Disorganization for Evaluating Movement and Posture Disorganization in Dyspraxia Children
Arthritis and Everyday Living
Lumbar Spine Evaluation and Treatment
Human Gross Anatomy
Therapeutic Communication
Early Childhood Development
Back Care
Cervical Care
Universal Precautions
Stretching/Flexibility
Clinical Simulation
Independent Study Projects (PTA Program 1994)

Suggested References: (1 of each per program)

Practice Issues in PT
Medical Terminology Simplified
Clinical Kinesiology for Physical Therapist Assistants
Measurement of Joint Motion: A Guide to Goniometry
Muscle Testing Techniques of Manual Examination
Patient Care Skills
Physical Rehabilitation: Assessment and Treatment
Beard's Massage
Thermal Agents in Rehabilitation
Clinical Electrotherapy
Therapeutic Exercise: Foundations and Techniques
An Integrated Approach to Therapeutic Exercise
Writing SOAP Notes
PTA Blue MACS
The Beginnings: Physical Therapy and the APTA
Taber's Cyclopedic Medical Dictionary
The Rehabilitation Specialist's Handbook
Manual for Physical Agents, 4th ed.
Book of Exercises
Medical Terminology
Diseases of the Human Body

APPENDIX A:

RELATED ACADEMIC TOPICS

APPENDIX A

RELATED ACADEMIC TOPICS FOR COMMUNICATIONS

C1 Interpret written material.
C2 Interpret visual materials (maps, charts, graphs, tables, etc.).
C3 Listen, comprehend, and take appropriate actions.
C4 Access, organize, and evaluate information.
C5 Use written and/or oral language skills to work cooperatively to solve problems, make decisions, take actions, and reach agreement.
C6 Communicate ideas and information effectively using various oral and written forms for a variety of audiences and purposes.

EXPANDED TOPICS FOR COMMUNICATIONS

TOPIC C1: Interpret written material.

C1.01 Read and follow complex written directions.
C1.02 Recognize common words and meanings associated with a variety of occupations.
C1.03 Adjust reading strategy to purpose and type of reading.
C1.04 Use sections of books and reference sources to obtain information.
C1.05 Compare information from multiple sources and check validity.
C1.06 Interpret items and abbreviations used in multiple forms.
C1.07 Interpret short notes, memos, and letters.
C1.08 Comprehend technical words and concepts.
C1.09 Use various reading techniques depending on purpose for reading.
C1.10 Find, read, understand, and use information from printed matter or electronic sources.

TOPIC C2: Interpret visual materials (maps, charts, graphs, tables, etc.).

C2.01 Use visuals in written and in oral presentations.
C2.02 Recognize visual cues to meaning (layout, typography, etc.).
C2.03 Interpret and apply information using visual materials.

TOPIC C3: Listen, comprehend, and take appropriate action.

C3.01 Identify and evaluate orally-presented messages according to purpose.
C3.02 Recognize barriers to effective listening.
C3.03 Recognize how voice inflection changes meaning.
C3.04 Identify speaker signals requiring a response and respond accordingly.
C3.05 Listen attentively and take accurate notes.
C3.06 Use telephone to receive information.

C3.07 Analyze and distinguish information from formal and informal oral presentations.

TOPIC C4: Access, organize, and evaluate information.

C4.01 Distinguish fact from opinion.
C4.02 Use various print and non-print sources for specialized information.
C4.03 Interpret and distinguish between literal and figurative meaning.
C4.04 Interpret written or oral communication in relation to context and writer's point of view.
C4.05 Use relevant sources to gather information for written or oral communication.

TOPIC C5: Use written and/or oral language skills to work cooperatively to solve problems, make decisions, take actions, and reach agreement.

C5.01 Select appropriate words for communication needs.
C5.02 Use reading, writing, listening, and speaking skills to solve problems.
C5.03 Compose inquiries and requests.
C5.04 Write persuasive letters and memos.
C5.05 Edit written reports, letters, memos, and short notes for clarity, correct grammar, and effective sentences.
C5.06 Write logical and understandable statements, phrases, or sentences for filling out forms, for correspondence or reports.
C5.07 Write directions or summaries of processes, mechanisms, events, or concepts.
C5.08 Select and use appropriate formats for presenting reports.
C5.09 Convey information to audiences in writing.
C5.10 Compose technical reports and correspondence that meet accepted standards for written communications.

TOPIC C6: Communicate ideas and information using oral and written forms for a variety of audiences and purposes.

C6.01 Give complex oral instructions.
C6.02 Describe a business or industrial process/mechanism.
C6.03 Participate effectively in group discussions and decision making.
C6.04 Produce effective oral messages utilizing different media.
C6.05 Explore ideas orally with partners.
C6.06 Participate in conversations by volunteering information when appropriate and asking relevant questions when appropriate.
C6.07 Restate or paraphrase a conversation to confirm one's own understanding.
C6.08 Gather and provide information utilizing different media.

C6.09 Prepare and deliver persuasive, descriptive, and demonstrative oral presentations.

RELATED ACADEMIC TOPICS FOR MATHEMATICS

M1 Relate number relationships, number systems, and number theory.
M2 Explore patterns and functions.
M3 Explore algebraic concepts and processes.
M4 Explore the concepts of measurement.
M5 Explore the geometry of one-, two-, and three-dimensions.
M6 Explore concepts of statistics and probability in real world situations.
M7 Apply mathematical methods, concepts, and properties to solve a variety of real-world problems.

EXPANDED TOPICS FOR MATHEMATICS

TOPIC M1: Relate number relationships, number systems, and number theory.

M1.01 Understand, represent, and use numbers in a variety of equivalent forms (integer, fraction, decimal, percent, exponential, and scientific notation) in real world and mathematical problem situations.
M1.02 Develop number sense for whole numbers, fractions, decimals, integers, and rational numbers.
M1.03 Understand and apply ratios, proportions, and percents in a wide variety of situations.
M1.04 Investigate relationships among fractions, decimals, and percents.
M1.05 Compute with whole numbers, fractions, decimals, integers, and rational numbers.
M1.06 Develop, analyze, and explain procedures for computation and techniques for estimations.
M1.07 Select and use an appropriate method for computing from among mental arithmetic, paper-and-pencil, calculator, and computer methods.
M1.08 Use computation, estimation, and proportions to solve problems.
M1.09 Use estimation to check the reasonableness of results.

TOPIC M2: Explore patterns and functions.

M2.01 Describe, extend, analyze, and create a wide variety of patterns.
M2.02 Describe and represent relationships with tables, graphs, and rules.
M2.03 Analyze functional relationships to explain how a change in one quantity results in a change in another.
M2.04 Use patterns and functions to represent and solve problems.
M2.05 Explore problems and describe results using graphical, numerical, physical, algebraic, and verbal mathematical models or representations.

M2.06 Use a mathematical idea to further their understanding of other mathematical ideas.
M2.07 Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as art, music, and business.

TOPIC M3: Explore algebraic concepts and processes.

M3.01 Represent situations and explore the interrelationships of number patterns with tables, graphs, verbal rules, and equations.
M3.02 Analyze tables and graphs to identify properties and relationships and to interpret expressions and equations.
M3.03 Apply algebraic methods to solve a variety of real world and mathematical problems.

TOPIC M4: Explore the concepts of measurement.

M4.01 Estimate, make, and use measurements to describe and compare phenomena.
M4.02 Select appropriate units and tools to measure to the degree of accuracy required in a particular situation.
M4.03 Extend understanding of the concepts of perimeter, area, volume, angle measure, capacity, and weight and mass.
M4.04 Understand and apply reasoning processes, with special attention to spatial reasoning and reasoning with proportions and graphs.

TOPIC M5: Explore the geometry of one-, two-, and three-dimensions.

M5.01 Identify, describe, compare, and classify geometric figures.
M5.02 Visualize and represent geometric figures with special attention to developing spatial sense.
M5.03 Explore transformations of geometric figures.
M5.04 Understand and apply geometric properties and relationships.
M5.05 Classify figures in terms of congruence and similarity and apply these relationships.

TOPIC M6: Explore the concepts of statistics and probability in real world situations.

M6.01 Systematically collect, organize, and describe data.
M6.02 Construct, read, and interpret tables, charts, and graphs.
M6.03 Develop an appreciation for statistical methods as powerful means for decision making.
M6.04 Make predictions that are based on exponential or theoretical probabilities.
M6.05 Develop an appreciation for the pervasive use of probability in the real world.

TOPIC M7: Apply mathematical methods, concepts, and properties to solve a variety of real-world problems.

M7.01 Use computers and/or calculators to process information for all mathematical situations.
M7.02 Use problem-solving approaches to investigate and understand mathematical content.
M7.03 Formulate problems from situations within and outside mathematics.
M7.04 Generalize solutions and strategies to new problem situations.

RELATED ACADEMIC TOPICS FOR SCIENCE

S1 Explain the Anatomy and Physiology of the human body.
S2 Apply the basic biological principles of Plants, Viruses and Monerans, Algae, Protista, and Fungi.
S3 Relate the nine major phyla of the kingdom animalia according to morphology, anatomy, and physiology.
S4 Explore the chemical and physical properties of the earth to include Geology, Meteorology, Oceanography, and the Hydrologic Cycle.
S5 Investigate the properties and reactions of matter to include symbols, formulas and nomenclature, chemical equations, gas laws, chemical bonding, acid-base reactions, equilibrium, oxidation-reduction, nuclear chemistry, and organic chemistry.
S6 Explore the principles and theories related to motion, mechanics, electricity, magnetism, light energy, thermal energy, wave energy, and nuclear physics.
S7 Explore the principles of genetic and molecular Biology to include the relationship between traits and patterns of inheritance, population genetics, the structure and function of DNA, and current applications of DNA technology.
S8 Apply concepts related to the scientific process and method to include safety procedures for classroom and laboratory; use and care of scientific equipment; interrelationships between science, technology and society; and effective communication of scientific results in oral, written, and graphic form.

EXPANDED TOPICS FOR SCIENCE

TOPIC S1: Explain the Anatomy and Physiology of the human body.

S1.01 Recognize common terminology and meanings.
S1.02 Explore the relationship of the cell to more complex systems within the body.
S1.03 Summarize the functional anatomy of all the major body systems.
S1.04 Relate the physiology of the major body systems to its corresponding anatomy.
S1.05 Compare and contrast disease transmission and treatment within each organ system.

S1.06 Explore the usage of medical technology as related to human organs and organ systems.
S1.07 Explain the chemical composition of body tissue.

TOPIC S2: Apply the basic biological principles of Plants, Viruses and Monerans, Algae, Protista, and Fungi.

S2.01 Identify the major types and structures of plants, viruses, monera, algae protista, and fungi.
S2.02 Explain sexual and asexual reproduction.
S2.03 Describe the ecological importance of plants as related to the environment.
S2.04 Analyze the physical chemical and behavioral process of a plant.

TOPIC S3: Relate the nine major phyla of the kingdom animalia according to morphology, anatomy, and physiology.

S3.01 Explain the morphology, anatomy, and physiology of animals.
S3.02 Describe the characteristics, behaviors, and habitats of selected animals.

TOPIC S4: Explore the chemical and physical properties of the earth to include Geology, Meteorology, Oceanography, and the Hydrologic Cycle.

S4.01 Examine minerals and their identification, products of the rock cycle, byproducts of weathering, and the effects of erosion.
S4.02 Relate the Hydrologic Cycle to include groundwater its zones, movement, and composition; surface water systems, deposits, and runoff.
S4.03 Consider the effects of weather and climate on the environment.
S4.04 Examine the composition of seawater; wave, tides, and currents; organisms, environment, and production of food; energy, food and mineral resources of the oceans.

TOPIC S5: Investigate the properties and reactions of matter to include symbols, formulas and nomenclature, chemical equations, gas laws, chemical bonding, acid-base reactions, equilibrium, oxidation-reduction, nuclear chemistry, and organic chemistry.

S5.01 Examine the science of chemistry to include the nature of matter, symbols, formulas and nomenclature, and chemical equations.
S5.02 Identify chemical reactions including precipitation, acids-bases, and reduction-oxidation.
S5.03 Explore the fundamentals of chemical bonding and principles of equilibrium.
S5.04 Relate the behavior of gases.
S5.05 Investigate the structure, reactions, and uses of organic compounds; and investigate nuclear chemistry and radiochemistry.

TOPIC S6: Explore the principles and theories related to motion, mechanics, electricity, magnetism, light energy, thermal energy, wave energy, and nuclear physics.

S6.01 Examine fundamentals of motion of physical bodies and physical dynamics.
S6.02 Explore the concepts and relationships among work, power, and energy.
S6.03 Explore principles, characteristics, and properties of electricity, magnetism, light energy, thermal energy, and wave energy.
S6.04 Identify principles of modern physics related to nuclear physics.

TOPIC S7: Explore the principles of genetic and molecular Biology to include the relationship between traits and patterns of inheritance; population genetics, the structure and function of DNA, and current applications of DNA technology.

S7.01 Examine principles, techniques, and patterns of traits and inheritance in organisms.
S7.02 Apply the concept of population genetics to both microbial and multicellular organism.
S7.03 Identify the structure and function of DNA and the uses of DNA technology in science, industry, and society.

TOPIC S8: Apply concepts related to the scientific process and method to include safety procedures for classroom and laboratory; use and care of scientific equipment; interrelationships between science, technology and society; and effective communication of scientific results in oral, written, and graphic form.

S8.01 Apply the components of scientific processes and methods in classroom and laboratory investigations.
S8.02 Observe and practice safe procedures in the classroom and laboratory.
S8.03 Demonstrate proper use and care for scientific equipment.
S8.04 Investigate science careers, and advances in technology.
S8.05 Communicate results of scientific investigations in oral, written, and graphic form.

APPENDIX B:

WORKPLACE SKILLS

APPENDIX B
WORKPLACE SKILLS FOR THE 21ST CENTURY

WP1 Allocates resources (time, money, materials and facilities, and human resources).

WP2 Acquires, evaluates, organizes and maintains, and interprets/communicates information, including the use of computers.

WP3 Practices interpersonal skills related to careers including team member participation, teaching other people, serving clients/customers, exercising leadership, negotiation, and working with culturally diverse.

WP4 Applies systems concept including basic understanding, monitoring and correction system performance, and designing and improving systems.

WP5 Selects, applies, and maintains/troubleshoots technology.

WP6 Employs thinking skills including creative thinking, decision making, problem solving, reasoning, and knowing how to learn.

APPENDIX C:

STUDENT COMPETENCY PROFILE

STUDENT COMPETENCY PROFILE

Student: _____

This record is intended to serve as a method of noting student achievement of the competencies in each course. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the program.

In the blank before each competency, place the date on which the student mastered the competency.

Fundamental Concepts of Physical Therapy (PTA 1123)

_____ 1. Demonstrate knowledge of medical terminology.
_____ 2. Demonstrate knowledge of desired psychosocial support for patients and their families.
_____ 3. Demonstrate knowledge of the history of physical therapy.
_____ 4. Demonstrate understanding of legal and ethical responsibilities for health care providers.
_____ 5. Demonstrate knowledge of the health care delivery system.
_____ 6. Demonstrate knowledge of reimbursement mechanisms.
_____ 7. Demonstrate knowledge of medical records.
_____ 8. Analyze current issues related to physical therapy.
_____ 9. Demonstrate knowledge of history, structure, and function of the APTA.
_____ 10. Summarize the roles of members of the health care team including Physical Therapists, Physical Therapist Assistants, and aides.
_____ 11. Demonstrate an awareness of the importance of appropriate interpersonal interaction in providing health care.

Fundamental Skills for Physical Therapist Assistants (PTA 1213)

_____ 1. Determine proper body mechanics.
_____ 2. Perform proper transfer techniques when handling patients.
_____ 3. Instruct patient in correct utilizations of assistive devices for gait.
_____ 4. Utilize appropriate safety measures for patient treatment.
_____ 5. Demonstrate selected bed mobility activities.
_____ 6. Demonstrate specific positioning techniques.
_____ 7. Demonstrate proper use of wheelchair.
_____ 8. Summarize OSHA standards for universal precautions.
_____ 9. Demonstrate knowledge of patient assessment skills.
_____ 10. Utilize appropriate first aid techniques for selected emergency situations.

Kinesiology (PTA 1314)

_____ 1. Identify biomechanical principles relating to the human body.
_____ 2. Identify principles and characteristics of muscle.
_____ 3. Demonstrate knowledge of selected joints and perform related joint activities.
_____ 4. Demonstrate knowledge of normal components of gait.
_____ 5. Differentiate between normal posture and postural deviations.

Therapeutic Exercise and Rehabilitation I (PTA 1324)

_____ 1. Perform specific therapeutic exercise treatments.
_____ 2. Describe and explain concepts of therapeutic exercise.
_____ 3. Determine accurate range of motion measurements using goniometry.
_____ 4. Assess accurately the strength of various muscle groups.
_____ 5. Implement exercise programs for specific musculoskeletal disorders.
_____ 6. Perform additional assessment and measurement techniques.

Therapeutic Exercise and Rehabilitation II (PTA 2333)

_____ 1. Identify the components and functions of the central and peripheral nervous systems.
_____ 2. Describe and implement the use of the developmental sequence in the treatment of neurological disorders.
_____ 3. Demonstrate knowledge of and implement specific techniques in the treatment of neurological disorders.
_____ 4. Describe the etiology, symptoms, and clinical course of specific neurological disorders.
_____ 5. Perform selected patient assessment and treatment activities.
_____ 6. Identify specific prosthetic and orthotic devices for specific conditions.

Therapeutic Modalities I (PTA 1124)

_____ 1. Demonstrate knowledge of principles and application of selected therapeutic modalities.
_____ 2. Perform selected assessment and measurement techniques.

Therapeutic Modalities II (PTA 2234)

_____ 1. Demonstrate knowledge of principles and application of therapeutic modalities.

Medical Conditions and Related Pathology (PTA 2513)

_____ 1. Demonstrate an introductory knowledge of disease processes, traumatic disorders, and medical conditions which affect various body systems.
_____ 2. Demonstrate knowledge of common surgical procedures.
_____ 3. Explain and differentiate between diagnostic procedures.
_____ 4. Implement treatment procedures for specific conditions.

Physical Therapy Seminar (PTA 2523)

_____ 1. Develop and present a topic of expertise.
_____ 2. Present and critique various case studies.
_____ 3. Successfully complete a mock licensure exam.
_____ 4. Demonstrate an understanding of the skills required for successful employment.

PTA Practicum I (PTA 1111)

_____ 1. Observe and describe roles of various personnel within the physical therapy department.
_____ 2. Interpret the role of the patient in the health care delivery system.

PTA Practicum II (PTA 1121)

_____ 1. Observe and contrast roles of various personnel within the physical therapy department.
_____ 2. Explain the role of the patient in the health care delivery system.

PTA Practicum III (PTA 1112)

_____ 1. Observe and illustrate the roles of various personnel in the physical therapy department.
_____ 2. Relate the patient's place within the health care delivery system.
_____ 3. Participate in routine supportive patient focused activities.

PTA Practicum IV (PTA 1113)

_____ 1. Observe and explain the roles of various personnel in the physical therapy department.
_____ 2. Explain the patient's place within the health care delivery system.
_____ 3. Participate in routine supportive patient focused activities.
_____ 4. List and describe the patient related activities performed by PT's and PTA's in that particular clinical setting.

Clinical Education I, II, III, IV (PTA 2413, 2424, 2434, 2444)

_____ 1. Demonstrate mastery of selected skills in a clinical setting.
_____ 2. Perform related clinical education activities.

Survey of Physical Therapy (PTA 1101)

_____ 1. Develop and appreciate the scope of the Physical Therapy profession.